

FIG. 1

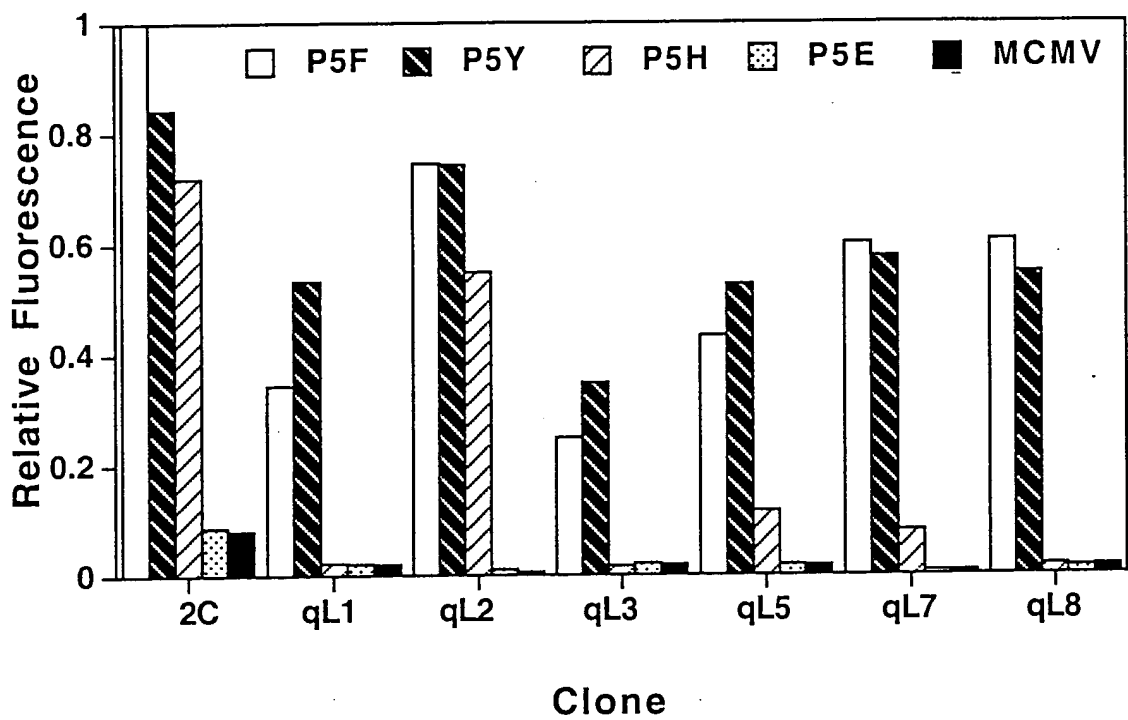


FIG. 2

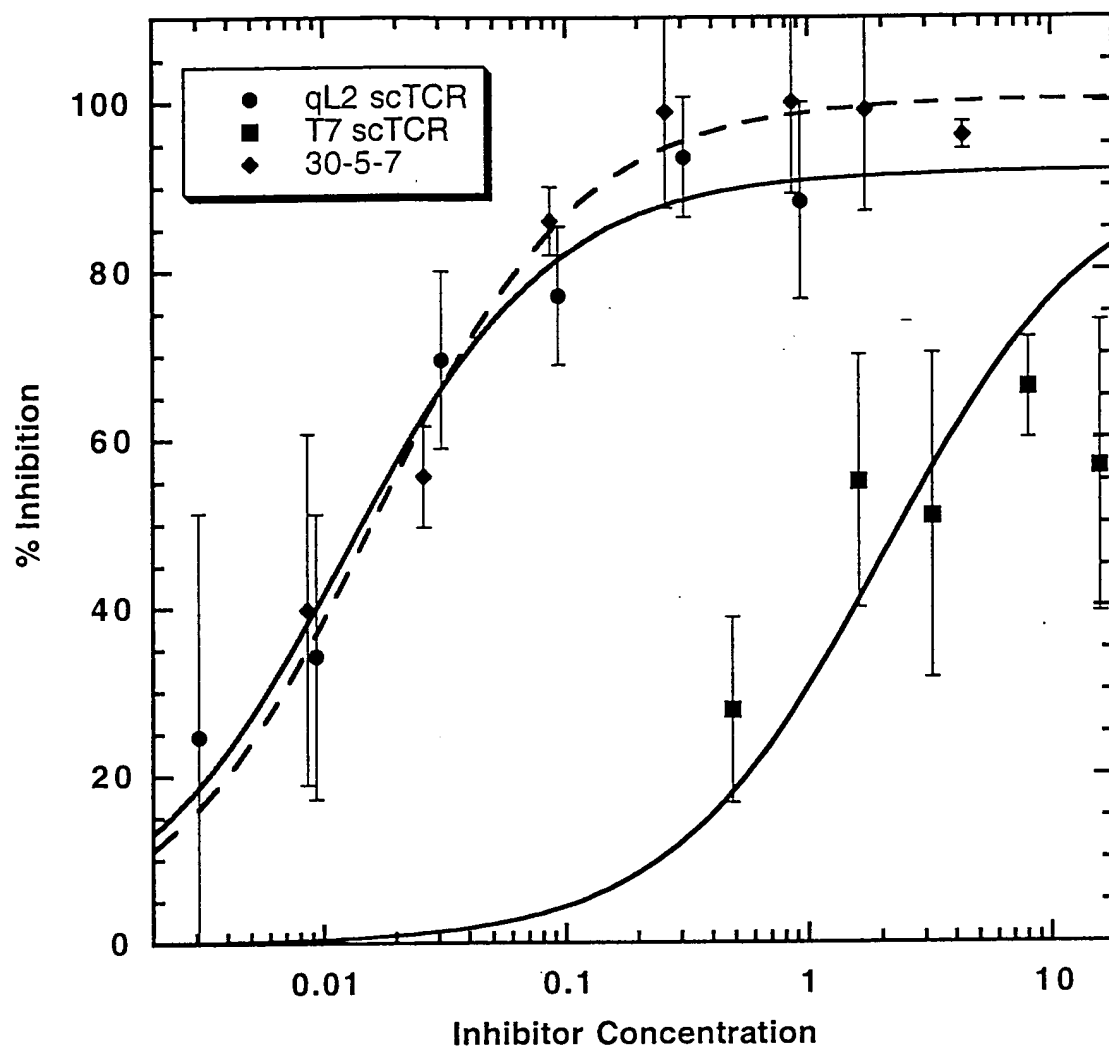
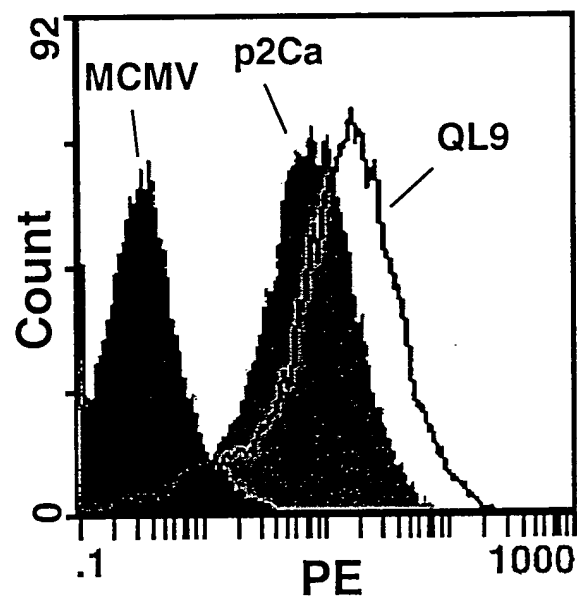
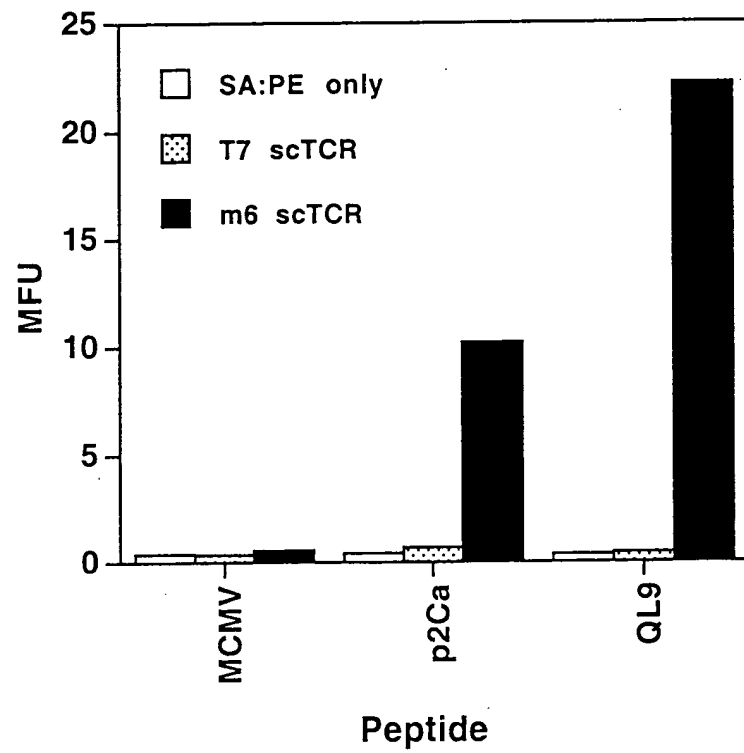


FIG. 3



**FIG. 4A**



**FIG. 4B**

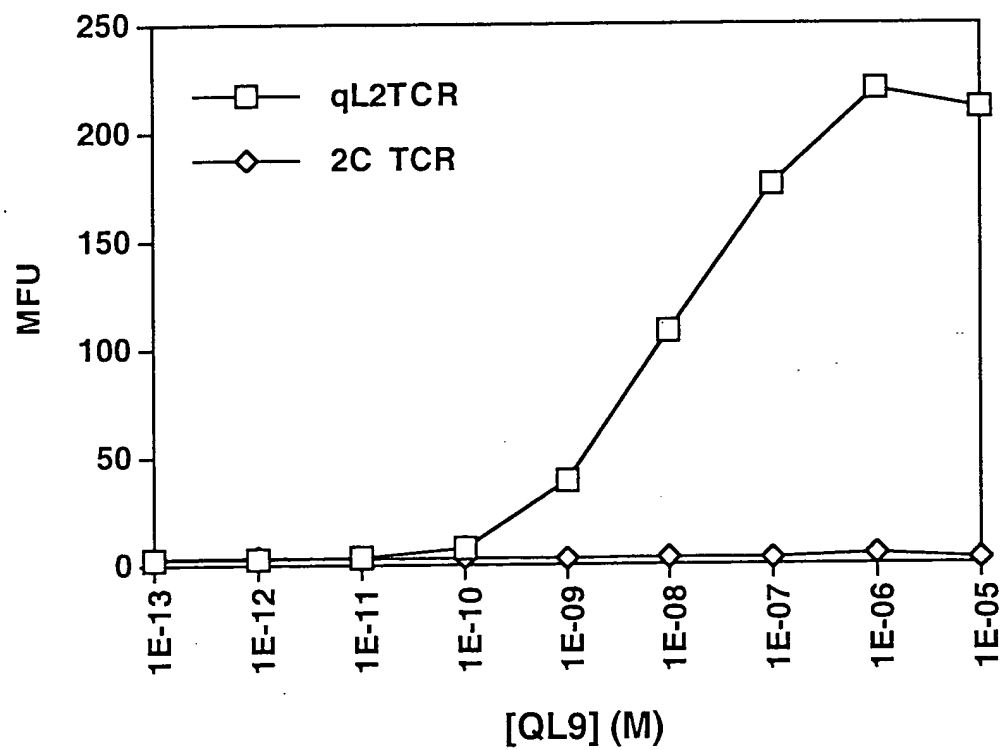


FIG. 4C

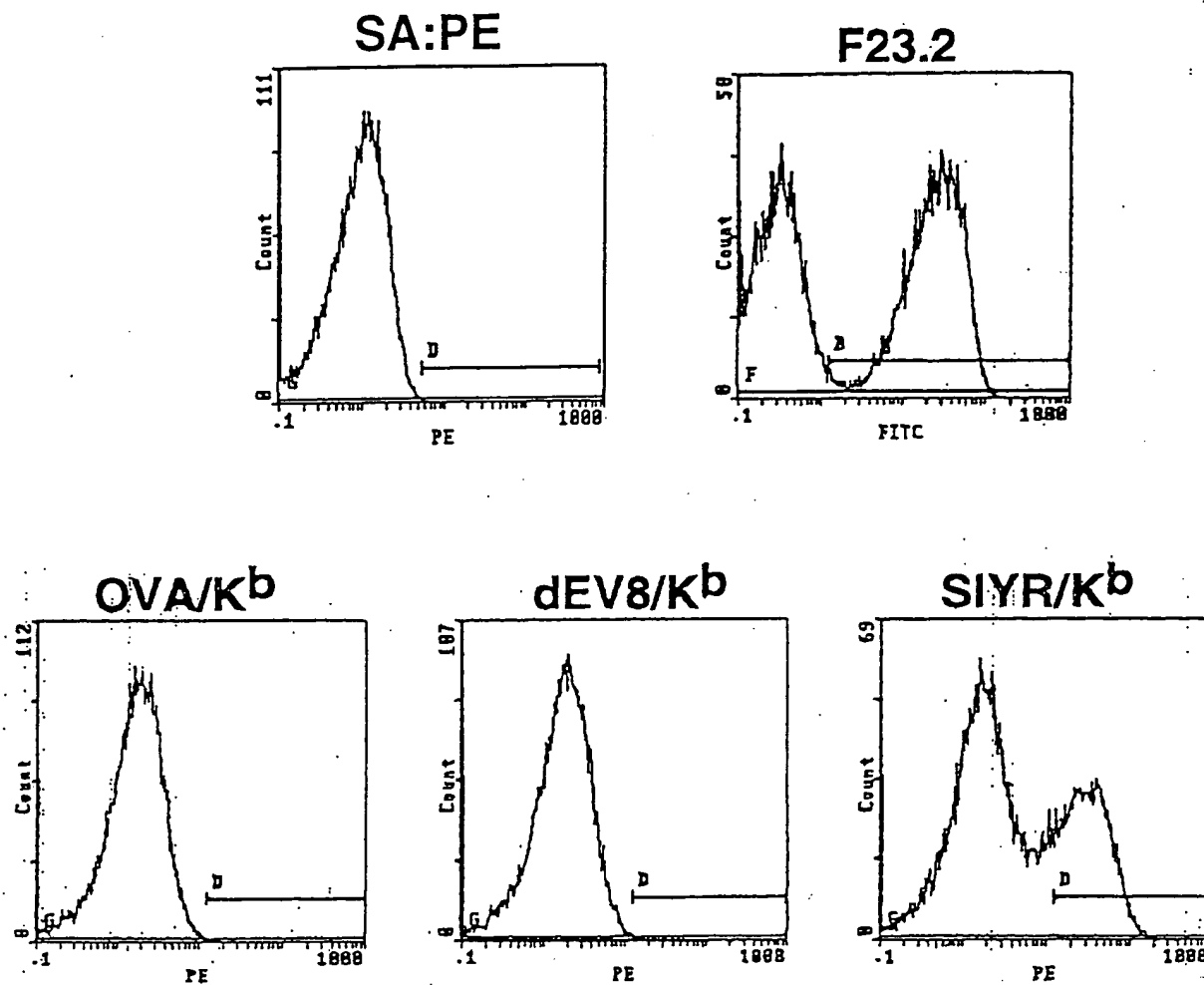
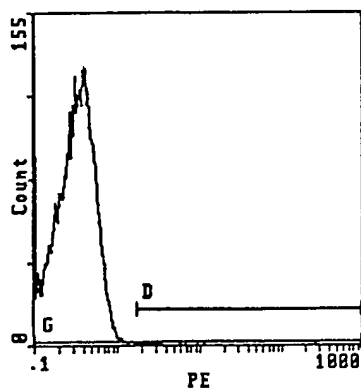


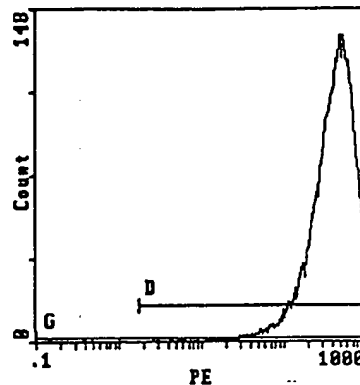
FIG. 5

## T2-K<sup>b</sup> cells stained with:

SA:PE

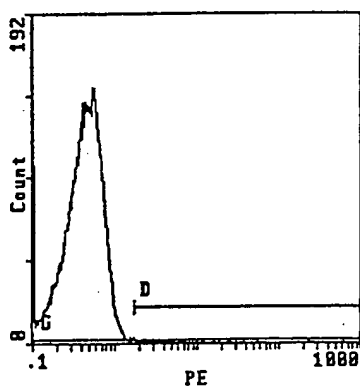


B8.24.3

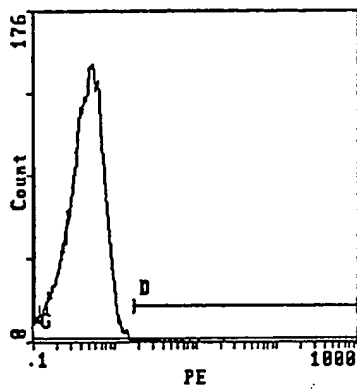


## Soluble 3SQ2:biotin on T2-K<sup>b</sup> with peptide:

OVA



dEV8



SIYR

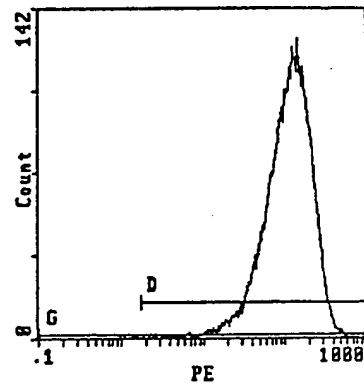
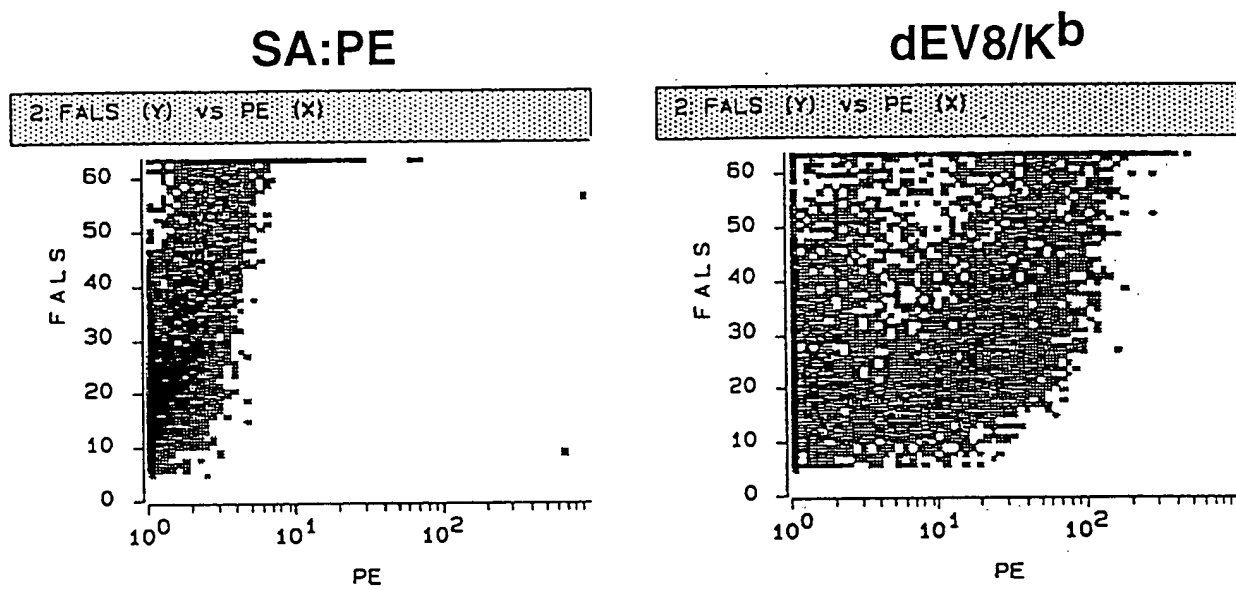
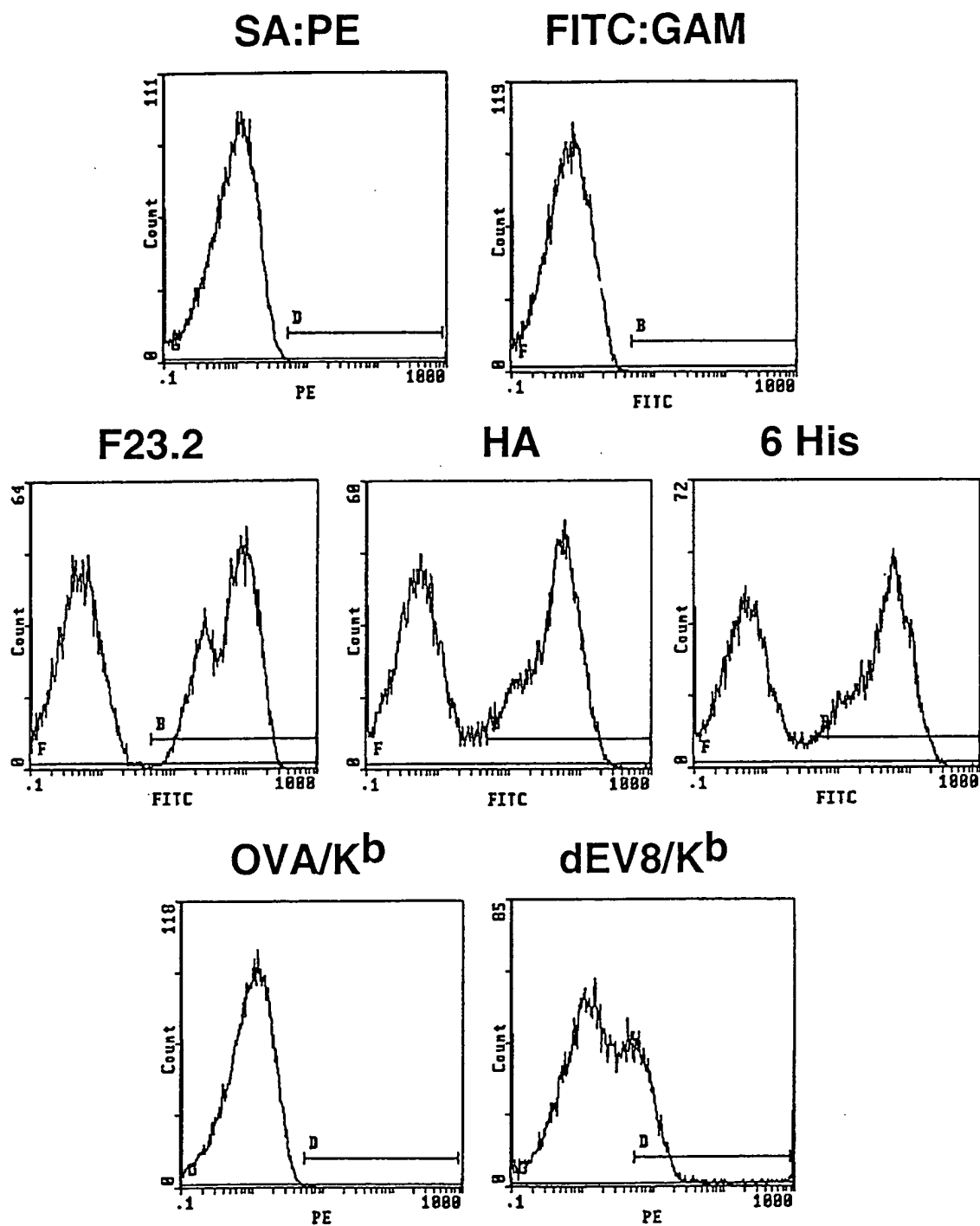


FIG. 6





**FIG. 7**



**FIG. 8**

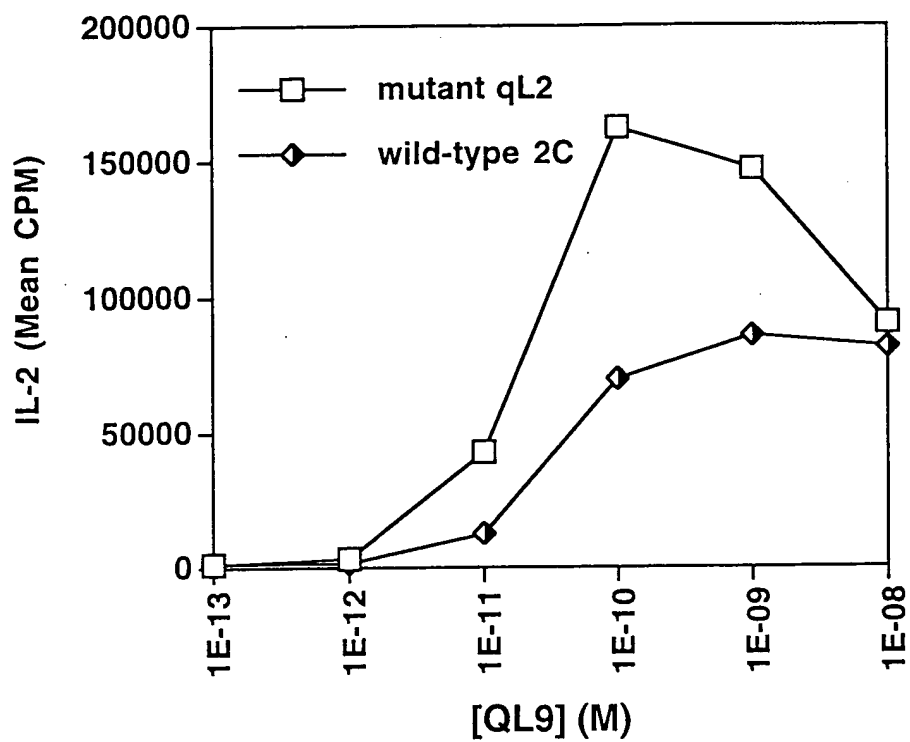


FIG. 9

<b>Wild Type TCR</b>	<b>V<math>\alpha</math>CDR3</b>
2C	<sup>93</sup> SGFASAL <sup>104</sup> (SEQ ID NO:7)

<b>Mutant TCR</b>	<b>V<math>\alpha</math>CDR3</b>	<b>Mutant TCR</b>	<b>V<math>\alpha</math>CDR3</b>
q2r	SSYGNYL (SEQ ID NO:8)	q1r	SLPPPLL (SEQ ID NO:17)
q4r	SRRGHAL (SEQ ID NO:9)	q3r	SIPTPSL (SEQ ID NO:18)
q5r	SSRG TAL (SEQ ID NO:10)	qL6	SNPPPLL (SEQ ID NO:19)
q6r	SHFGTRL (SEQ ID NO:11)	qL7	SDPPPLL (SEQ ID NO:20)
qL1	SMFGTRL (SEQ ID NO:12)	qL8	SSPPPRL (SEQ ID NO:21)
qL2	SHQG RYL (SEQ ID NO:13)	qL10	SAPPPIL (SEQ ID NO:22)
qL3	SYLGLRL (SEQ ID NO:14)		
qL4	SKHGIHL (SEQ ID NO:15)		
qL5	SLTG RYL (SEQ ID NO:16)		

FIG. 10

•3SQ5	SGTHPFL (SEQ ID NO:23)
SK7	SGHLPFL (SEQ ID NO:24)
K5r	SDSKPFL (SEQ ID NO:25)
K4r	SSDRPYL (SEQ ID NO:26)
SK8	SLERPYL (SEQ ID NO:27)
SK2	SREAPYL (SEQ ID NO:28)
K3r	SLHRPAL*(SEQ ID NO:29)
3SQ2	SLHRPAL*(SEQ ID NO:30)
SK10	SSNRPAL (SEQ ID NO:31)
K1r	STDRPSL (SEQ ID NO:32)
K2r	SGSRPTL (SEQ ID NO:33)
•SK3	SLVTPAL (SEQ ID NO:34)
SK1	SATSPAL (SEQ ID NO:35)
SK9	SSINPAL (SEQ ID NO:36)
SK4	SASYPSL (SEQ ID NO:37)
•3SQ1	SRWTSGL (SEQ ID NO:38)
•Consensus	SGSRPAL (SEQ ID NO:39)

FIG. 11

<b>Clone</b>	<b>CDR3<math>\alpha</math></b>
4d1	SLTHHFL (SEQ ID NO:40)
4d2	SMTHHFL (SEQ ID NO:41)
3Sd3	SLSRPYL (SEQ ID NO:42)
3dS6	SLTRPYL (SEQ ID NO:43)
3dS2	STYRHYL (SEQ ID NO:44)
3d2	SGLARPL (SEQ ID NO:45)
3SQ2	SLHRPAL (SEQ ID NO:46)
3SQ5	SGTHPFL (SEQ ID NO:47)

FIG. 12

Clone	CDR3 $\beta$
WT 2C	GGGGTLY (SEQ ID NO:48)
QB2	GGGGVLY (SEQ ID NO:49)
QB4	GLGGILY (SEQ ID NO:50)
QB6/8	GQGGVLY (SEQ ID NO:51)
QB7	GSGGIY (SEQ ID NO:52)
QB9	GGGGILY (SEQ ID NO:53)

Clone	95	96	97	98	105	106	107
WT 2C	GGT	GGG	GGG	GGC	ACC	TTG	TAC
QB2	GGT	GGG	GGG	GG <u>G</u>	GTG	TTG	TAC
QB4	GGT	TTG	GGG	GG <u>G</u>	ATC	<u>CTC</u>	TAC
QB6/8	GGT	CAG	GG <u>C</u>	GG <u>G</u>	GTG	TTG	TAC
QB7	GGT	TCG	GGG	GG <u>G</u>	ATC	ATC	TAC
QB9	GGT	GG <u>C</u>	GGG	GG <u>G</u>	ATC	TTG	TAC

FIG. 13